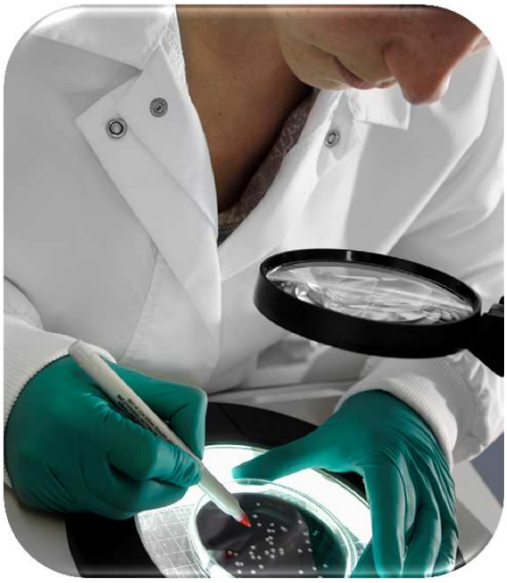
European Commission

Joint Research Centre

Certified reference materials for food microbiology



Genomic DNA of food pathogens

The certified "value" is the identity of the DNA; the amount of DNA per vial is indicative only.
Availability: Vial containing genomic lyophilised DNA closed under argon atmosphere.

Material	Indicative values	
IRMM-447 *Listeria monocytogenes* (strain 4B, NCTC 11994)	DNA per vial (indicative) [ng]	(1.1 ± 0.7)
IRMM-448 *Campylobacter jejuni* (NCTC 11351)	DNA per vial (indicative) [ng]	(71 ± 39)
IRMM-449 *Escherichia coli* 0157 (strain EDL 933)	DNA per vial (indicative) [ng]	(1.3 ± 0.7)

Food pathogens on material spheres

Available in vials containing one lyophilised sphere each. The spheres can be added to food to test method performance or to water to test suitability of culture media.

Material	Method	[CFU/sphere]
IRMM-351 *Escherichia coli* 0157 (NCTC 12900)	ISO 7218, nutrient agar ISO 16654, enterohemolysin agar	4 ± 2 4 ± 2
IRMM-352 *Salmonella enteritidis* (NCTC 12694).	ISO 7218, nutrient agar ISO 6579, xylose lysine deoxycholate agar	5 ± 2 4 ± 2
IRMM-354 *Candida albicans* (NCPF 3179)	ISO 7218, nutrient agar ISO 13681, Oxytetracyclin-Glucose-Yeast Extract agar (OGYE)	917 ± 168 912 ± 173
IRMM-355 *Enterococcus faecalis* (CIP 106877)	ISO 7218, horse blood agar ISO 7899-2, Slanetz and Bartley agar	890 ± 135 823 ± 126

Confidence in measurements

All certificates and detailed production information can be found at https://crm.irmm.jrc.ec.europa.eu

https://ec.europa.eu/jrc/

ERM European Reference Materials

BCR

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Food pathogens in milkpowder

Available in containers holding 10 gelatine capsules filled with artificially contaminated milk powder.

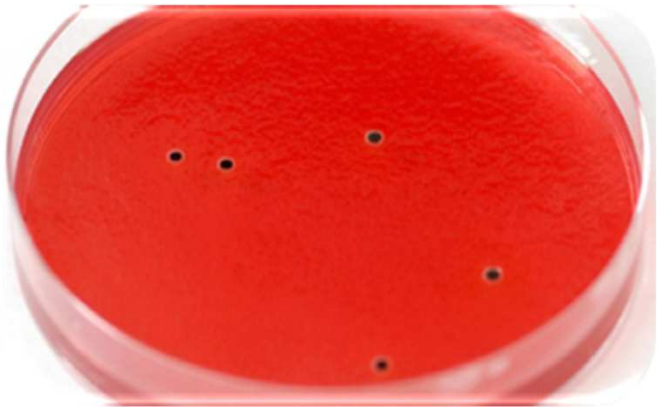
Material	Method		Value
BCR-528 *Bacillus cereus* (ATCL 9139)	ISO 7932, MEYP (24 h incubation) ISO 7932, MEYP (48 h incubation) L 00.00 – 25, PEMBA (24 h incubation) L 00.00 – 25, PEMBA (48 h incubation)	[CFU/capsule] [CFU/capsule] [CFU/capsule] [CFU/capsule]	53.4 53.7 55.0 55.8

Genomic DNA of bacteria for PFGE

The materials are specified for their Pulsed Field Gel Electrophoresis (PFGE) pattern after digestion.
Availability: Each vial contains one agarose insert of undigested genomic DNA suitable for PFGE.

Available materials:

- **IRMM-311**, *Bacillus licheniformis* DSM 5749
- **IRMM-312**, *Bacillus subtilis* DSM 5750
- **IRMM-313**, *Campylobacter coli CNET068 and Campylobacter jejuni CNET112*



How to order reference materials

From JRC in Geel

Tel.: +32 14 571 705 • Fax: +32 14 590 406
https://ec.europa.eu/jrc/en/reference-materials
E-mail: jrc-irmm-rm-distribution@ec.europa.eu

From authorised distributors

LGC Standards GmbH (DE)
http://www.lgcstandards.com/
E-mail: de@lgcstandards.com

Sigma-Aldrich Chemie GmbH (CH)
http://www.sigmaaldrich.com/irmm
E-mail: flukatec@sial.com

Sigma-Aldrich RTC Inc. (USA)
http://www.RT-Corp.com
E-mail: RTCSalesgroup@sial.com

ARMI (USA)
http://www.armi.com
E-mail: Info@ARMI.com

Industrial Analytical (RSA)
http://www.industrialanalytical.co.za
E-mail: info@industrialanalytical.co.za

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